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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------------------------------------------|-------------|----------------------|-------------------------------|------------------|
| 10/790,410 | 03/01/2004 | Akbar Syed Hussaini | DU-002-01 | 1458 |
| 26868 | 7590 | 04/14/2006 | EXAMINER | |
| HASSE & NESBITT LLC 7550 CENTRAL PARK BLVD. MASON, OH 45040 | | | SANDERS, KRIELLION ANTIONETTE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 1714 | |

DATE MAILED: 04/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/790,410

Applicant(s)

HUSSAINI ET AL.

Examiner

Kriellion A. Sanders

Art Unit

1714

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 January 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-35 and 37-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 14-35 and 37-53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 14-33 and 47-53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has amended the claims so that they now require the sound-damping compositions to be “pre-baked”. There is insufficient support for this limitation in the original disclosure. This phrase appears in applicant’s specification at page 3, lines 1 and 2, but it is not used in such a manner as to define the present invention. The phrase “pre-baked” used in applicant’s specification is used to describe some alternative composition. Also the specification does not fully describe what is necessary for applicant’s compositions to be “pre-baked”.

The specification fails to provide support for the new limitations of claim 25. The specification does not describe a method wherein a composition is extruded onto a substrate as a “plurality of spaced-apart beads”.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 35 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. Claim 35 recites the limitation "pre-baked" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claims 34 and 37-45 do not use the terms "pre-baked" or "plurality of spaced-apart beads".

Claim Rejections - 35 USC § 102

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14-35 and 37-53 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over LeStarge, US Patent No. 6872761.

LeStarge discloses acoustic damping coatings having improved surface appearance and/or noise-suppression properties which are derived from aqueous compositions containing at least one polymer in dispersed form, at least one particulate inorganic filler, and expandable microspheres. The expandable microspheres increase in volume when the substrate coated with a layer of the aqueous composition is heated to dry the aqueous composition, thereby providing a final coating surface that is smoother than a coating surface obtained in the absence of the expandable microspheres. The sound transmission properties of the dried coating are also enhanced by the presence of the expandable microspheres. These microspheres are considered to be beads. Therefore, an extruded composition would be "in beads" or in the form of beads".

The polymers used in the patented invention typically have glass transition temperatures in the range of from about 0 degrees C. to about 90 degrees C. Preferred polymers include dispersions of a homopolymer or copolymer of a diolefin such as 1,3-butadiene, cyclobutadiene, and/or isoprene. The comonomer may preferably be selected from vinyl aromatic compounds such as, for example, styrene or alpha-methyl styrene, acrylonitrile, or other ethylenically unsaturated monomers. Acrylate polymers and copolymers, acrylic resins, such as, for example, copolymers of lower alkyl (meth)acrylates such as n-butyl acrylate with comonomers such as styrene and/or acrylonitrile are also preferred for use. Mixtures of these polymers may be used to obtain the desired combination of properties in the final cured coating. The two polymers

may both be acrylic resins having different monomer compositions, selected to provide the desired Tg characteristics.

Inorganic fillers in particulate form are incorporated into the aqueous compositions of the present invention for the purpose of providing bulk to the dried coating, adjusting the hardness of the dried coating, improving the sound or vibration damping properties of the dried coating, controlling blistering of the dried coating, and/or modifying the flammability of the dried coating. The inorganic filler(s) may be in any suitable form such as powder, fibrous, needle-like, scale-like, spherical, plate-like, and other shape known in the art and should be insoluble in water. Examples of inorganic fillers suitable for use in the invention include calcium carbonate, silica, alumina, kaolin, clay, talc, mica, diatomaceous earth, glass powder or fibers, aluminum hydroxide, perlite, barium sulfate, magnesium carbonate, calcium dihydrate, rock wool, asbestos, wollastonite, zeolite, glass or ceramic microspheres and graphite

Additionally, one or more thickeners (sometimes referred to in the art as rheology modifiers) may be employed to modify the viscosity or rheological characteristics of the aqueous coating composition so as to inhibit it from dripping from a substrate surface that is not horizontal and to permit the formation of a wet coating of the desired thickness. Any of the standard rheology modifiers known for this purpose in the aqueous coating art may be utilized, including, for example, carboxy methyl cellulose (including salts thereof) and other polysaccharide derivatives and organically modified clays.

Additional optional components of the aqueous composition of the patented invention include, but are not limited to, dispersing agents (inorganic as well as organic),

viscosity improvers/modifiers, preservatives, anti-oxidants, plasticizers, pH control agents (e.g., acids, bases, buffering agents), corrosion inhibitors, fungicides, ultraviolet absorbers, antistatic agents, and the like.

Example 4 of the patented disclosure utilizes ACRONAL S504, n-butyl acrylate/acrylonitrile/styrene copolymer, natural graphite and wet ground mica,

Claim 18 of the patent calls for a method of forming an acoustic or vibration damping coating on a metal substrate surface, said method comprising (a) forming a layer of the composition of claim 15 on said metal substrate surface and (b) heating said layer for a time and at a temperature effective to dry said layer and to cause said expandable microspheres to increase in volume, said layer being sufficient to provide a thickness when dry and expanded of from about 1000 to about 5000 microns. Patentee also teaches that drying of the coating can be performed by any suitable method such as oven drying or induction heating, provided the wet coating is exposed to a temperature effective to activate expansion of the expandable microspheres. This minimum drying temperature is said to vary depending upon the characteristics of the particular expandable microspheres selected for use. However, the drying temperature may be determined by reference to the T_{start} values of the expandable microspheres. Patentee indicates that typically, the drying temperature will be in the range of from about 70 degrees C. to about 200 degrees C.

Patentee is silent as to the density of the compositions of the patented invention, however since patentee is utilizing the same components it is probable that a density of 1.1 to 1.6 g/cc is inherent to the composition. The derivation of an appropriate density for the compositions is obvious to the ordinary practitioner in this art by modifying the

weight ratios of the components. Utilization of these compositions in any conventional apparatus, such as automobiles, cell phones, and noisy kitchen fixtures and appliances, that require sound damping would be obvious to the art-skilled.

Response to Arguments

6. Applicant's arguments filed 1/31/06 have been fully considered but they are not persuasive.

7. Lestarge disclose that the compositions are derived from aqueous compositions containing at least one polymer in dispersed form, at least one particulate inorganic filler, and expandable microspheres. These microspheres are considered to be beads. Patentee does not indicate particular width and thickness of these microspheres, however in the event that the dimensions are different from the presently claimed beads, the selection of a dimension for a microspore is an obvious design choice absent a clear showing of unexpected results attributable to the specified dimensions. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that certain of the features upon which applicant relies (i.e., limitations to the compositions being in the form of "beads having a width of 1-12mm, and a thickness of about 1-3 mm with a spacing of less than 2 mm between beads") are not recited in the rejected claim(s) 14 -46. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

8. The inclusion of the limitation “pre-baked” in the claims does not render them patentably distinct in that the limitation is not supported or defined by the original disclosure and is therefore unclear.

9. Applicant’s 131 affidavit has been fully considered but is not found to be effective in swearing behind the effective date of the Lestarge reference. The Research Notebook SR 1291, Kolano and Saha Engineers, Inc. Report and IR 02-002 and SR129-1 reports are ineffective in that the subject matter of these documents is to the “pre-baked” compositions for r which applicant has not shown adequate support in the original disclosure.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kriellion A. Sanders whose telephone number is 571-272-1122. The examiner can normally be reached on Monday through Thursday 6:30-7:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on 571-272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Kriellion A. Sanders
Primary Examiner
Art Unit 1714

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